

**PROPOSED VALIDATION UNDER THE PLENARY POWERS  
OF THE GENERIC NAME "SAO" BARRANDE, 1846 (CLASS  
TRILOBITA)**

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The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers for the purpose of validating the long-familiar generic name *Sao* Barrande, 1846 (Class Trilobita). That this generic name is technically invalid has long been known, but owing to the special importance of this genus no attempt has ever been made to replace it by some other name. Nor is the project that the Commission should be asked to validate the name *Sao* Barrande a new one, for already during the recent war Rudolf Richter in a paper entitled "*Nomina conservanda: Antrag auf Aufhebung der 'Regeln' zu Gunsten von Sao Barrande 1846*" (1941, *Senckenbergiana* 23 : 291-293) recommended the adoption of this course.

2. The age of the genus *Sao* Barrande is Middle Cambrian and the genus is of exceptional importance since it represents the most classical case of the developmental history of a trilobite species. The work on trilobites published in 1852 (*Syst. Silur. Bohême*) in which Barrande published his conclusions in regard to this genus was a pioneer study of its kind and was based upon material which was exceptional both for its state of preservation and for its completeness from the early protaspid stage to the adult. The figures given by Barrande are widely reproduced in general text-books both of zoology and palaeontology. It would be little short of a disaster if this historic name were to be cast aside for the sake of some narrow nomenclatorial technicality. The history of this case is set out in the following paragraphs.

3. The nominal genus *Sao* was established by Barrande in 1846 (*Not. prél. Silur.* : 13) with the species *Sao hirsuta* Barrande, 1846 (*ibid.* : 13) as type species by monotypy. At this early date Barrande did not fully appreciate the character of this species and in the same paper he described other specimens of it under the new generic and specific names *Monadina distincta* (: 19), while to another specimen he gave a third new specific name *nanus* (: 12), placing the species so named in the genus *Ellipsocephalus* (emend. of *Elleipsocephalus*) Zenker, 1833 (*Beitr. Nat. Urwelt* : 51).

4. The status of *Sao* Barrande is not adversely affected by the existence of the older name *Elleipsocephalus* Zenker, 1833, for the type species of that genus does not even belong to the same family as the genus *Sao*. The type species by monotypy of this genus is *Elleipsocephalus ambiguus* Zenker (: 51), which ever since Emmrich (1839, *De Trilobitis*: 44) has been subjectively identified with *Trilobites hoffi* Schlotheim, 1823 (*Petrefactenk. Nachtr.* 2 : 30). Emmrich (: 17) was the first author also to emend to *Ellipsocephalus* the defective original spelling *Elleipsocephalus* and this emendation completely replaced the original spelling. As part of the general settlement now proposed this generic name in its emended spelling should be placed on the *Official List of Generic Names in Zoology*. This genus is the type genus of the well-established family ELLIPSOCEPHALIDAE Matthew (G.F.), 1887 (*Trans. R. Soc. Canada* 5 (sect. 4) : 128). This name should now be placed on the *Official List of Family-Group Names in Zoology*.

5. The generic name *Monadina* applied by Barrande to a specimen of *S. hirsuta* Barrande at the same time that the nominal genus *Sao* was established (paragraph 3 above) is a subjective synonym of the latter name. Accordingly, as the names *Sao* and *Monadina* were published in the same book and on the same date, the relative precedence to be accorded to them is, under the *Règles* (1953, *Copenhagen Decisions zool. Nomencl.* : 66-67, Decisions 123-124) through the application of the "First Reviser" Rule. The name *Monadina* was treated by Barrande in 1852 as a junior synonym of *Sao* and it has been similarly treated by subsequent authors. It is not clear, however, that Barrande's action constituted a formal choice in favour of *Sao* as against *Monadina* under the foregoing Rule. Accordingly, in order to set at rest any possible doubts on this subject, I here select the name *Sao* under the "First Reviser" Rule to take precedence over the name *Monadina*.

6. The next author to deal with the species to which Barrande in 1846 had given the name *Sao hirsuta* was Corda in Hawle & Corda in 1847 in his paper entitled *Prodrom einer Monographie der böhmischen Trilobiten* (: 1-116). In this paper Corda completely misunderstood the material before him and erected no less than ten new nominal genera and eighteen new nominal species on the basis of specimens of Barrande's *hirsuta*. With two exceptions these names are subjective synonyms only and as such do not fall within the scope of the present application. The two exceptions are:—(1) *Staurogmus* Corda, 1847 (*ibid.* : 28), a substitute name for *Sao* Barrande, 1846; (2) *muricatus* Corda, 1847 (*ibid.* : 28), as published in the combination *Staurogmus muricatus*, a substitute name for *hirsuta* Barrande, 1846, as published in the combination *Sao hirsuta*.

7. Up till 1955 the genus *Sao* Barrande was placed in various families, including the family SOLENOPLEURIDAE and the family PTYCHOPARIIDAE. In the most recent treatment of this group Hupé in his *Classification des*

*Trilobites* (Ann. Paléont. 41 : 130) has however erected the family-group taxon SAOIDAE for this taxon.

8. The technical defect which at present renders the name *Sao* Barrande, 1846, invalid is that that name is a junior homonym of *Sao* Billberg, 1820 (Enum. Ins. Mus. Billberg. : 135). Reference to the copy of this rare work in the library of the British Museum (Natural History) shows that *Sao* Billberg is the name of a monotypical genus having as its type species by monotypy the nominal species *Cancer mantis* Linnaeus, 1758 (Syst. Nat. (ed. 10) 1 : 633) (Class Crustacea, Order Stomatopoda). By the Ruling given by the Commission under its Plenary Powers in *Opinion* 186 (1945, Ops. Decs. int. Comm. zool. Nomencl. 3 : 53-64) the above species was designated as the type species of the genus *Squilla* Fabricius, 1787, of which therefore the name *Sao* Billberg, 1820, is a junior objective synonym. It will thus be seen that from the point of view of carcinologists there cannot be the slightest objection to the suppression of the name *Sao* Billberg by the Commission under its Plenary Powers, while, as already explained, such action would be of the greatest possible value to workers on Trilobites. The generic name *Squilla* Fabricius, 1787, was placed on the *Official List of Generic Names in Zoology* by the Ruling given in *Opinion* 186, while the name *mantis* Linnaeus, 1758, as published in the combination *Cancer mantis* was placed on the *Official List of Specific Names in Zoology* by the Ruling given in *Direction* 1 (1954, Ops. Decs. int. Comm. zool. Nomencl. 3(30) : 401-416). No action therefore requires to be taken in regard to either of these names.

9. It must be noted also that Billberg placed his genus *Sao* in a suprageneric taxon of family-group rank (the category concerned being styled by Billberg as a "Natio"), to which he gave the name SAONIDES. Until recently the existence of a family-group name based upon the generic name *Sao* Billberg in Crustacea would have given rise to a troublesome problem of homonymy in relation to the family-group name in Trilobita based upon the generic name *Sao* Barrande. Fortunately, however, no difficulty need be anticipated under this head, for under a *Declaration* (*Declaration* 20) recently adopted by the Commission (1955, Ops. Decs. int. Comm. zool. Nomencl. 10(19) : i-viii) it has been ruled that, where the name of a genus which is the type genus of a taxon of the family-group is suppressed by the Commission under its Plenary Powers, the decision so taken is to apply equally to the family-group name based on the generic name in question. Accordingly, if the Commission grants the present application for the suppression of the generic name *Sao* Billberg, that decision will automatically carry with it a decision similarly to suppress the family-group name SAOIDAE (correction of SAONIDES) Billberg, 1820.

10. In addition to the senior homonym *Sao* Billberg, 1820, discussed in the immediately preceding paragraph, there is also a junior homonym *Sao* Adams (H.), 1854 (*Gen. rec. Moll.* 2 : 21), a name applied to a genus of Mollusca (Class Gastropoda). This name was replaced by the name *Pyrunculus*

by Pilsbry in 1895 (*in* Tryon & Pilsbry, *Man. Conch.* (1) 15 : 181, 229). The type species of this genus by original designation is *Bulla (Atya) pyriformis* Adams (A.), 1850 (*Thes. Conch.* 2 : 589). As part of the general settlement of the *Sao* problem now proposed, the name *Sao* Adams should be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* and the other names mentioned above should be placed on the appropriate *Official Lists*. Neither *Sao* Adams nor *Pyrunculus* Pilsbry have been taken as the base for a family-group name, the genus being currently placed in the family RETUSIDAE.

11. For the reasons set forth in the present application the International Commission on Zoological Nomenclature is asked :—

(1) to use its Plenary Powers :—

- (a) to suppress the generic name *Sao* Billberg, 1820 (Class Crustacea, Order Stomatopoda) for the purposes both of the Law of Priority and of the Law of Homonymy ;
- (b) to approve the emendation *Ellipsocephalus* (published by Emmrich (H.F.) in 1839 and since generally adopted) of the generic name *Elleipsocephalus* Zenker, 1833 (Class Trilobita) ;

(2) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—

- (a) *Sao* Barrande, 1846, as validated under the Plenary Powers under (1)(a) above (gender : feminine) (type species, by monotypy : *Sao hirsuta* Barrande, 1846) (Class Trilobita) ;
- (b) *Ellipsocephalus* (emend. under the Plenary Powers under (1)(b) above of *Elleipsocephalus*) Zenker, 1833 (gender: masculine) (type species, by monotypy : *Ellipsocephalus* (emend. of *Elleipsocephalus*) *ambiguus* Zenker, 1833) [Note not for inclusion in the "Official List" : The name *ambiguus* Zenker, 1833, as published in the above combination is currently regarded as a junior subjective synonym of *hoffii* Schlotheim, 1823, as published in the combination *Trilobites hoffii*.] (Class Trilobita) ;
- (c) *Pyrunculus* Pilsbry, 1895 (gender : masculine) (type species, by original designation : *Bulla (Atya) pyriformis* Adams (A.), 1850 [Note : The name *Pyrunculus* Adams is a *nom. nov. pro* the invalid name *Sao* Adams, 1854, referred to in (4)(2) below.] (Class Gastropoda) ;

(3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—

- (a) *hirsuta* Barrande, 1846, as published in the combination *Sao hirsuta* (specific name of type species of *Sao* Barrande, 1846) ;

- (b) *hoffii* Schlotheim, 1823, as published in the combination *Trilobites hoffii*;
  - (c) *pyriformis* Adams (A.), 1850, as published in the combination *Bulla (Atya) pyriformis* (specific name of type species of *Pyrrunculus* Pilsbry, 1895);
- (4) to place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
- (a) *Sao* Billberg, 1820, as suppressed under the Plenary Powers under (1)(a) above;
  - (b) *Sao* Adams (H.), 1854 (a junior homonym of *Sao* Barrande, 1846);
  - (c) *Elleipsocephalus* Zenker, 1833 (an Invalid Original Spelling for *Ellipsocephalus* rejected under the Plenary Powers under (1)(b) above);
  - (d) *Staurogmus* Corda in Hawle & Corda, 1847 (a junior objective synonym of *Sao* Barrande, 1846);
- (5) to place the under-mentioned specific name on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—*muricatus* Corda in Hawle & Corda, 1847, as published in the combination *Staurogmus muricatus* (a junior objective synonym of *hirsuta* Barrande, 1846, as published in the combination *Sao hirsuta*);
- (6) to place the under-mentioned family-group names on the *Official List of Family-Group Names in Zoology* :—
- (a) SAOIDAE Hupé, 1955 (type genus : *Sao* Barrande, 1846);
  - (b) ELLIPSOCEPHALIDAE Matthew (G.F.), 1887 (type genus : *Ellipsocephalus* (emend. of *Elleipsocephalus*) Zenker, 1833);
- (7) to place the under-mentioned family-group names on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—
- (a) SAOIDAE (correction of SAONIDES) Billberg, 1820 (type genus : *Sao* Billberg, 1820) (automatically suppressed under the Plenary Powers through *Declaration 20* consequent upon the suppression under the above Powers of the generic name *Sao* Billberg, 1820, under (1)(a) above);
  - (b) SAONIDES Billberg, 1820 (type genus : *Sao* Billberg, 1820) (an Invalid Original Spelling for SAOIDAE).